REMARKS

Applicant submits this Response in response to the Office Action mailed January 3, 2005.
Applicant has amended claims 24 and 28. Claims 1-36 remain pending. No new matter has
been added. Claims 1, 17, 24, 28 and 33 are independent claims.

In the Office Action, the Examiner has rejected claims 1-4, 6, 14-16, 24-26, 28-30 and 33-36
under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,988,497 to Wallace
("Wallace") in view of a web site posting titled "Data Link Layer" ("DLL Posting"). The
Examiner has also rejected claims 5, 7-13, 17-23, and 31-32 under 35 U.S.C. § 103(a) as
unpatentable over Wallace, the DLL Posting and further in view of U.S. Patent No. 5,880,446 to
Mori et al. ("Mori"). Applicant traverses these rejections, as further discussed below.

Wallace describes a "validation method that uses variable personal identification numbers
(PINs)" in the context of card transactions (e.g., credit cards). (Wallace, col. 1, lines 43-44.) "In
the first tier of the validation process, the system validates the proposed credit transaction based
upon a static sequence of PINs. Specifically, after receiving a PIN from a user, the system
determines whether the received PIN matches a predefined PIN stored in a database. If no match
is identified, an invalidation result can be returned. If a match is identified, the system
determines whether the credit transaction requires a second tier of validation." (Wallace, col. 1,
line 63 to col. 2, line 3.) In the second validation tier, a variable PIN generated by a user-held
device is provided by the user, and this variable PIN is compared to a variable PIN
synchronously generated at a validation site. If the variable PINs match, the transaction is
authenticated. (Wallace, col. 2, lines 22-28.)

Conspicuously absent from the method described in Wallace is any discussion of packets
entering a network, much less any discussion of layer 2 information in such packets or replacing
any layer 2 information with a unique bit string. Likewise, Wallace provides no description of
using any part of the unique bit string to determine an ingress location of the network from
which a packet originated.

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The DLL Posting merely describes the data link layer (DLL) as the "layer above the MAC layer" that "provides a reliable, efficient communication between stations," and indicates certain characteristics of the DLL, including the use of "packets," checksums and other error control devices. (DLL Posting.) Nowhere does the DLL Posting describe replacing any layer 2 information with a unique bit string, or any authentication or tracking activities or capabilities using such a unique bit string.

Mori describes an "electronic transaction process" in which an "electronic transaction procedure" is transmitted to each party to the transaction, and each party uses the procedure to perform certain steps related to an electronic transaction. (Mori, col. 2, lines 15-47.) As one example of the execution of a procedure, Mori described the sending of a message from a buyer for an "order input process." The message is described as including: "information about a buyer containing a name, address, telephone number, mail address and IP address, delivery address information (a name, address, telephone number, mail address and IP address) for the case where the address for delivery is different from that of the buyer . . . and signed in a digital form by the buyer. . . ." (Mori, col. 14, lines 13-40.) Notably absent from the description provided in Mori is any discussion of packets, layer 2 information, replacing layer 2 information with a unique bit string, or using a unique bit string for authentication or tracking activities.

Independent Claims 1 and 33 and their Dependencies:
In contrast to the description provided in Wallace, the DLL Posting and Mori, claim 1 recites "a method for authenticating a party to a transaction, for use with a network in which packets entering the network have at least a part of layer 2 information replaced with a unique bit string," the method including:

        a) examining at least a part of the unique bit string;
        b) comparing the at least a part of the unique bit string examined with
stored information; and
        c) authenticating the party only if the at least a part of the unique bit string
examined matches the stored information.

Claim 33 likewise recites an "apparatus for authenticating a party to a transaction for use with a network in which packets entering the network have at least a part of a layer 2 information replaced with a unique bit string," where the apparatus comprises:

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a) an input for accepting an authentication request;
b) storage means for storing authentication information;
c) means for examining at least a part of the unique bit string;
d) a comparison facility for comparing the at least a part of the unique bit string examined with the stored authentication information; and
e) means for authenticating a party to a transaction only if the at least a part of the unique bit string examined matches the stored authentication information.

As noted above, none of the references relied upon by the Examiner teach or suggest all elements of the method of claim 1, or the apparatus of claim 33, either taken individually or in combination. For example, there is no description in Wallace, the DLL Posting or Mori of packets entering a network that have at least a part of layer 2 information replaced with a unique bit string, as recited in claims 1 and 33. The absence of at least this portion of claims 1 and 33 from the prior art indicates that claims 1 and 33 are patentable over Wallace, the DLL Posting and/or Mori.

In rejecting claims 1 and 33, the Examiner has alleged that Wallace "discloses examining at least a part of the unique bit string; comparing the at least a part of the unique bit string examined with stored information; and authenticating the party only if the at least a part of the unique bit string examined matches the stored information (see [Wallace] column 1 line 63 through column 2 line 29 where it is inherent the unique bit string is maintained as the packet is communicated within the network.)" (Office Action, p. 2.) Applicant notes that the portion of Wallace cited by the examiner describes the transmission of a PIN to a system which compares the PIN to a stored PIN to validate a transaction (and thus the Examiner is reading the PIN as the "unique bit string"). Assuming for purposes of this argument that the PIN described in Wallace may be considered a "unique bit string" (which Applicant does not concede), nowhere does Wallace describe how such a PIN is transmitted, much less any description of layer 2 information or replacing such layer 2 information with such a PIN. The Examiner has conceded as much in the Office Action: "Wallace fails to disclose the bit string replacing part of the layer 2 (data link layer) information." (Office Action, p. 3.)

The Examiner further alleges that the DLL Posting "teaches the data link layer" (Office Action, p. 3), and that "it would have been obvious to a person of ordinary skill in the art to use

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Wallace's authentication method in the data link layer of DLL." (Office Action, p. 3.) Yet the DLL Posting provides no description of replacing any part of any packet information with a unique bit string, much less the layer 2 information of such packets. Thus, the modification proposed by the Examiner – combining the method described in Wallace with the description of the DLL Posting – does not result in the method recited by claim 1 or the apparatus recited by claim 33, which cannot sustain a rejection of claims 1 and 33 under § 103. The system described by Mori does not correct this deficiency.

Moreover, the Examiner contends that the motivation to make such a combination "would have been to allow for error detection (see DLL page 1)." (Office Action, p. 3.) Yet the Examiner identifies no teaching or suggestion in Wallace or the DLL Posting that anyone would be motivated to produce the proposed combination of Wallace and the DLL Posting in order to "allow for error detection." Wallace provides no discussion of error detection, and the DLL Posting merely mentions using checksums for error detection. Other than the teachings provided in the present application, the Examiner has articulated no reasoning as to why one of skill in the art would have been motivated to combine the teachings of these two otherwise unrelated references to attempt to create the combined elements of claims 1 and 33. Without such a motivation to be derived solely from the disclosures of Wallace and/or the DLL Posting, combination of Wallace and the DLL Posting in the rejection of these claims is not proper.

Since Wallace, the DLL Posting and/or Mori do not teach or suggest all of the elements of claims 1 and 33, these claims are patentable over these references, and Applicant respectfully requests that the Examiner withdraw the rejections of claims 1 and 33. As claims 2-16 depend from claim 1, and therefore include all of the elements of claim 1, claims 2-16 are patentable over these references for at least the same reasons as claim 1, and Applicant therefore respectfully requests that the Examiner withdraw the rejections of claims 2-16 as well. As claims 34-36 depend from claim 33, and therefore include all of the elements of claim 33, claims 34-36 are patentable over these reference for at least the same reasons as claim 33, and Applicant therefore respectfully requests that the Examiner withdraw the rejections of claims 34-36 as well.

Independent Claim 17 and its Dependencies:

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Claim 17 recites a "method for tracking a network ingress location at which a packet associated with a transaction originated, wherein packets entering the network have at least a part of a layer 2 information replaced with a unique bit string," where the method includes:

      a) examining at least a part of the unique bit string; and
      b) determining the network ingress location from the at least a part of the unique bit string.

As noted above in discussing the references, none of the references relied upon by the Examiner teach or suggest the method of claim 17, either taken individually or in combination. For example, there is no description in Wallace, the DLL Posting or Mori of packets entering a network that have at least a part of layer 2 information replaced with a unique bit string, as recited in claim 17. As was the case for claim 1, the absence of at least this portion of claim 17 from the prior art indicates that claim 17 is patentable over Wallace, the DLL Posting and/or Mori.

In rejecting claim 17, the Examiner has alleged that a "modified Wallace, DLL and Mori et al. system" discloses "determining the network ingress location from the at least a part of the unique bit string (see Wallace and DLL as applied to claim 1 where the transaction data now contains the location data of Mori at al column 14 lines 19-40.)" (Office Action, p. 5.) As noted for claim 1, the Examiner's allegations as to the combination of Wallace and the DLL Posting do not result in a method that uses packets in which any part of layer 2 information is replaced with a unique bit string. Moreover, the portion of Mori cited by the Examiner describes a message that includes address information for a buyer – which is not described as inserted into layer 2 information or used to determine the network ingress location. The absence of either of these elements from the alleged combination of Wallace, the DLL Posting and Mori precludes any finding of obviousness.

Since Wallace, the DLL Posting and/or Mori do not teach or suggest all of the elements of claim 17, claim 17 is patentable over these references, and Applicant respectfully requests that the Examiner withdraw the rejection of claim 17. As claims 18-23 depend from claim 17, and therefore include all of the elements of claim17, claims 18-23 are patentable over these reference

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for at least the same reasons as claim 17, and Applicant therefore respectfully requests that the Examiner withdraw the rejections of claims 18-23 as well.

Independent Claims 24 and 28 and their Dependencies:

Claim 24 of the present application recites a method for authenticating a party to a transaction for use with a network in which packets entering the network have a unique bit string applied to them, the method comprising:

     a) examining at least a part of the unique bit string;
     b) comparing the at least a part of the unique bit string examined with stored information; and
     c) approving a transaction only if the at least a part of the unique bit string examined matches the stored information,
     wherein the unique bit string uniquely identifies the party and an ingress location of the network, and no information in addition to the unique bit string is needed for authenticating the party to the transaction.

Likewise, claim 28 of the present application recites a method that includes:

     a) applying a unique bit string to packets entering the network, the unique bit string uniquely identifying the party and an ingress location of the network;
     b) examining at least a part of the unique bit string;
     c) comparing the at least a part of the unique bit string examined with stored information; and
     d) approving a transaction only if the at least a part of the unique bit string examined matches the stored information.

None of the Wallace, DLL Posting and Mori references teach or suggest all of the elements of claims 24 and 28. For example, none of these references describe a unique bit string that uniquely identifies a party and an ingress location of the network, as recited in claims 24 and 28. The absence of at least these portions of claims 24 and 28 from the prior art cited by the Examiner indicates that the rejection of these claims under § 103 cannot be sustained. Applicant respectfully requests that the Examiner withdraw the rejections of claims 24 and 28. Since claims 25-27 depend from claim 24, and therefore include all of the elements of claim 24, claims 25-27 are patentable over these references for at least the same reasons as claim 24, and Applicant therefore respectfully requests that the Examiner withdraw the rejections of claims 25-27 as well. As claims 29-32 depend from claim 28, and therefore include all of the elements of claim 28, claims 29-32 are patentable over these references for at least the same reasons as claim
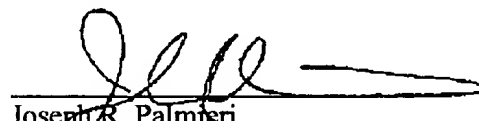
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28, and Applicant therefore respectfully requests that the Examiner withdraw the rejections of claims 29-32 as well.

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CONCLUSION

In view of the foregoing, Applicant respectfully submits that the pending claims are in condition for allowance. [1] Reconsideration and allowance are respectfully requested. If there are any outstanding issues which need to be resolved to place the application in condition for allowance, the Examiner is invited to contact Applicant's undersigned representative by phone at the number indicated below to discuss such issues. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. With respect to this application, please charge any other necessary fees and credit any overpayment to that account.

Respectfully submitted,

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[1] As Applicant's remarks with respect to the base independent claims are sufficient to overcome the Examiner's rejections of all claims dependent therefrom, Applicant's silence as to the Examiner's assertions with respect to dependent claims is not a concession by Applicant to the Examiner's assertions as to these claims, and Applicant reserves the right to analyze and dispute such assertions in the future. Likewise, as Applicant's remarks with respect to rejections based on alleged prior art are sufficient to overcome the Examiner's rejections, Applicant's silence as to certain requirements applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references) is not a concession by Applicant that such requirements have been met, and Applicant reserves the right to analyze and dispute such in the future.

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